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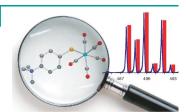


### Phosphinidene Complexes

H. Jansen, M. C. Samuels, E. P. A. Couzijn, J. C. Slootweg, A. W. Ehlers, P. Chen,\* K. Lammertsma\*

# **Reactive Intermediates: A Transient Electrophilic Phosphinidene Caught in the Act**

**Trapped!** The transient electrophilic phosphinidenes  $[R-P=W(CO)_5]$  have emerged as versatile intermediates that are highly valuable in the synthesis of a plethora of organophosphorus compounds, nevertheless their existence has never been unequivocally established. By employing electrospray ionisation tandem mass spectrometry (ESI-MS/MS), this low-valent species has now been detected and its gas-phase reactivity perfectly matches the well-established solution-phase data.



*Chem. Eur. J.* DOI: **10.1002/chem.200902715** 



### One-Pot Synthesis

S. Bhuvaneswari, M. Jeganmohan, C.-H. Cheng\*

Platinum-Catalyzed Multi-Step Reaction of Propargyl Alcohols with  $N\text{-}Heteroaromatics}$ 

**Cooking in only one pot**: *N*-Heteroaromatics including indoles and pyrroles efficiently react with propargyl alcohols in the presence of PtCl<sub>2</sub> leading to carbon-3 alkylation of indoles and carbon-2 alkylation of pyrrole.



Chem. Asian J.

DOI: 10.1002/asia.200900318



## Single-Molecule Studies

L. Ma, S. L. Cockroft\*

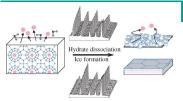
**Biological Nanopores for Single-Molecule Biophysics** 

**Biology viewed through the eye of a pore**: Single-molecule methods have revolutionised the way that biological questions are tackled. Contributions to the field of biophysics from biological nanopore-based methods are reviewed.



ChemBioChem

DOI: 10.1002/cbic.200900526



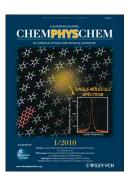
*ChemPhysChem* DOI: **10.1002/cphc.200900731** 

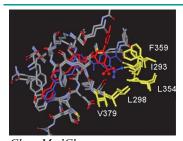
Gas Hydrates

S. Takeya, J. A. Ripmeester\*

# Anomalous Preservation of $CH_4$ Hydrate and its Dependence on the Morphology of Hexagonal Ice

**Trapped**: Anomalous preservation, the existence of gas hydrates far outside their stability zone below the melting point of ice, is shown to depend on the type of guest molecule, the morphology of hexagonal ice that grows during hydrate dissociation and the mode of decomposition (see graphic).





*ChemMedChem*DOI: **10.1002/cmdc.200900394** 

### Drug Design

K. Skobridis,\* M. Kinigopoulou, V. Theodorou, E. Giannousi, A. Russell, R. Chauhan, R. Sala, N. Brownlow, S. Kiriakidis, J. Domin, A. G. Tzakos, N. J. Dibb

# Novel Imatinib Derivatives with Altered Specificity between Bcr-Abl and FMS, KIT, and PDGF Receptors

**Tuning selectivity**: Herein we report the design, synthesis, and biological evaluation of a new series of phenylaminopyrimidines, structurally related to imatinib, which generally have greater activity against the PDGFR family and poorer activity against Abl as the result of alterations of the phenyl and *N*-methylpiperazine rings.



# | V Et,N-CNTs 3 | V Et,N-CNTs 3 | V Et,N-CNTs 1 | V Et,N-CNTs 2 | V Et,N-CNTs 1 | V Et,N-CNTs

ChemSusChem
DOI: 10.1002/cssc.200900181

### Functional Nanotubes

A. Villa, J.-P. Tessonnier, O. Majoulet, D. S. Su,\* R. Schlögl

# Transesterification of Triglycerides Using Nitrogen-Functionalized Carbon Nanotubes

**Nitrogen-functionalized carbon nanotubes** are synthesized by grafting amino groups onto the surface of the nanotubes. We demonstrate that the concentration of the active sites and the reaction parameters have strong effects on the activity of the catalysts in the transesterification of glyceryl tributyrate to methyl butanoate.



*ChemCatChem*DOI: **10.1002/cctc.200900209** 

### **Supported Catalysts**

K. Shimizu,\* M. Nishimura, A. Satsuma

# $\gamma\text{-}Alumina\text{-}Supported Silver Cluster for $N\text{-}Benzylation of Anilines with Alcohols}$

A silver lining in every catalyst: Silver clusters on  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> catalyze the *N*-alkylation of anilines with alcohols in the presence of a catalytic amount of Lewis acid. The reaction proceeds by cooperation of coordinatively unsaturated silver, acid, and base sites of the oxide support.





### Radical Polymerization

R. Nicolaÿ, Y. Kwak, K. Matyjaszewski\*

A Green Route to Well-Defined High-Molecular-Weight (Co)polymers Using ARGET ATRP with Alkyl Pseudohalides and Copper Catalysis

Whitewater RAFTing: High-molecular-weight (HMW) (co)polymers can be formed using ARGET ATRP with alkyl pseudohalides as initiators and chain-transfer agents. This system works with parts-per-million quantities of copper(I) catalyst whilst retaining excellent control over molecular weight, MW distribution and chain-end functionality. Copper wire (see picture) can be used as reducing agent several times without additional treatment.



Angew. Chem. Int. Ed. DOI: 10.1002/anie.200905340



### Multifunctional Peptide Dendrimers

E. H. M. Lempens, B. A. Helms, A. R. Bayles, M. Merkx, E. W. Meijer\*

A Versatile, Modular Platform for Multivalent Peptide Ligands Based on a Dendritic Wedge

An efficient, modular and broadly applicable strategy is presented for the synthesis of multivalent and multifunctional peptide dendrimers. The scope of the method is demonstrated by introduction of a variety of popular targeting peptides at the periphery and other biologically relevant groups at the focal point of  $AB_n$ -type (n=2–5) dendrons.



Eur. J. Org. Chem. DOI: **10.1002/ejoc.200901045** 

